International Journal of Surgery 9 (2011) 488–489

Contents lists available at ScienceDirect

International Journal of Surgery

journal homepage: www.theijs.com

Discussion

Commentary on: "Facial transplantation revisited: Findings from the very first public engagement exercise"

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ARTICLE INFO

Article history:
Received 30 June 2011
Accepted 4 July 2011
Available online 23 July 2011

Advances in the last decade have seen face transplantation move from the realm of science fiction to reality. Face transplants have been performed for a range of conditions, including tumours, burns, and extensive trauma from gunshot wounds. Further work is still required on the technical aspects given the 20% mortality in the small cohort of case reports thus far. Nevertheless there is promise from hand transplantation which is technically similar in a number of ways.[1,2]

As facial transplants have become reality, the discussion surrounding them has evolved from theoretical considerations of ethics,[3] psychological[4] and technical aspects to analysis of real outcomes.[5] Now important questions need to be asked with a wider scope. As such, there are two main reasons why public consultation about facial transplantation is imperative. First, whole face transplantation has provoked a debate in the media, one that is especially emotive in the United States.[6] As with all sensitive ethical issues, careful consultation with a range of stakeholders is important. The paper by Gwanmesia et al.[7] sought the opinion of the lay public and healthcare professionals without extensive experience of facial disfigurement as well as plastic surgeons and patients with facial disfigurement themselves.

The second and more pragmatic reason for public engagement is that a large pool of willing donors is required for facial transplantation to succeed. This issue is complicated by different national donor systems. For example, in the USA and UK, an 'opt-in' system of organ donation is used; some fear that dissemination of facial transplantation may act as a deterrent to donors. However, this view does not take into account the special consent needed for face and limb transplantation. In contrast, France has an 'opt-out' system of presumed consent. This poses different challenges, and surgeons in France have been careful to gain explicit informed consent from the family.[8] Although this is sensible in high-profile cases, the question remains whether this would be maintained if and when face transplants become more widespread. How accepting would populations be of presumed consent of facial transplantation?

The paper made some interesting findings that should stimulate validation and exploration in larger and more focused engagement exercises. It was found that internal organs were much more likely to be donated or accepted than face transplants. When complications and side-effects of the surgery and immunosuppression were taken into account, the likelihood of accepting a face transplant was decrease although this had little effect on transplantation of other organs. The authors concluded that respondents were discriminating between life-saving internal organ transplantation and life-enhancing face transplantation and so were making different risk-benefit decisions. This view is supported by the similar effects seen in hand transplantation, another operation which may be considered life-enhancing rather than life-saving. Interestingly more respondents felt opposed to face than hand transplants, despite similar life-enhancing properties. This discrepancy may result from issues of identity that are more strongly embedded regarding the face than the hand. Another interesting point is that for those patients with facial disfigurement, considering complications and side-effects made little difference to their decision to accept a facial transplant. Perhaps these patients make different risk-benefit decisions as the line between life-saving and life-enhancing may be different for those patients who have real experience of facial deformity.[9] This contradicts previous work where both healthy and disfigured respondents were willing to accept a higher level of risk

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1743-9191/$ – see front matter
doi:10.1016/j.ijsu.2011.07.002

for face transplantation than kidney transplantation.[10] The sample size of the patients in the current study is too small to draw any firm conclusions here but further work is needed to address this discrepancy.

Although taking account of risk makes little difference to patients with facial disfigurement in this study, more would rather live with their condition than attempt a transplant (even with a hypothetical 99.9% success rate). This is in concordance with previous work showing that those with facial disfigurement were more risk averse than control groups in considering facial transplantation.[10] It appears that certain facially disfigured patients utilise a coping mechanism such that they prefer their current face.[11] Work has been done previously to ascertain who would be eligible for a face transplant[12]; this data raises intriguing questions about which patients would actually want a face transplant. More analysis on what informs patients' decisions regarding a transplant would be helpful. It is not clear whether the patients who responded in this survey had the extensive tissue damage required for a facial transplant. Nevertheless, it is important to note that a quarter of these patients would still opt for a transplant.[7]

The most intriguing trend to emerge from this study is the inverse relationship between donor-recipient resemblance and the willingness to receive a face transplant.[7] That is, the more a potential donor looks like the recipient, the less likely the recipient is to accept. Can this be replicated in further studies? If it is a true phenomenon, the underlying psychological mechanisms need to be examined and its practical implications considered. In reports of the first eight face transplants, only one (by Siemienow's team) mentions consideration of similarity between donor and recipient.[8,13–16] Here similarity to the patient was noted as important. There appears to be a tension between the public's preference for donation with limited resemblance on one hand and the technical aspects of a successful transplantation on the other. However, one must consider three practical issues. Firstly, the donor face must at least superficially resemble the patient's face in terms of age and subsequent survival of skin, colouring, size and shape in order for the transplant to be successful.[17] Secondly, the reality of face transplantation is that suitable donors are scarce and choice is limited. In different countries, different problems are encountered. In China, for example, transplantation has been performed from a non-heart beating cadaver,[14] whilst in France it has been from a heart-beating cadaver.[8] Finding patients who fit the criteria for transplantation, and whose family consent, is difficult. Finally, it is clear that the face, once transplanted onto a new bone structure, becomes a 'third' face, neither of the donor or the recipient before disfigurement. It is important to portray this message in future public engagement exercises.

Gwanmesia et al. have made an important step in performing the first public engagement exercise. Their findings suggest that more work needs to be done on understanding the risk-benefit decisions that people make, and how this differs between stakeholders. Similarly, issues surrounding identity need to be characterised more closely, but this needs to go hand-in-hand with public education about the realities of face transplants.

Conflicts of interest
None declared.

Source of funding
None.

Ethical approval
None declared.

Author contribution

Riaz Agha: concept, critical revision, final approval; Eric Edison: drafting the article, final approval; Christian Camm: critical revision, final approval.

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